unhealthy-looking, was powdered with iodoform and douched with 1 to 40 solution of carbolic acid every three hours.

On the third day the temperature was 101.5° F.; the pulse 130; and the respirations 36. The wound was completely covered with membrane, and the neighbouring tissues were very much swollen and infiltrated.

On the fourth day the temperature was 100° F.; the pulse 120; the respirations 30. The wound was healthier, and the swelling had decreased. The silver cannula was replaced by one of Dr. Baker's india-rubber cannulas.

On the fifth day the temperature was 99°; the pulse 110; the respirations 28. The wound was almost free from membrane, and the general condition was good.

On the sixth, seventh, and eighth days the treatment was continued, and the symptoms improved.

On the ninth day the tube was removed, and the powers of natural breathing tested by occluding the tracheal opening with the finger. Exhalation was performed freely and well. Inhalation at once induced spasm, and the tube had to be reintroduced. At half an hour's interval a second attempt met with the same result.

On the tenth, eleventh, and twelfth days the tube was removed for a longer period each day; and on the thirteenth day it was removed altogether.

On the eighteenth day the child was perfectly well, the voice had returned, and the wound had completely healed up.

Remarks.—The discouraging effect which the unfortunate very high mortality of tracheotomy for diphtherial laryngitis in children under 2 years of age has on the mind of the general practitioner prompted me to give a full account of the successful issue of this case. The features of special interest are:—That the case was conducted at the patient's home; that the father, an intelligent artisan, nursed the child faithfully and well, single-handed, for the first five days and nights; that the parent's consent (often the chief source of delay) was obtained well in advance; that the operation was suggested before the lungs were affected to any extent; that the venous hæmorrhage, which was very profuse, practically ceased on opening the trachea; that stimulants (brandy) were freely given throughout the case, and that the child was entirely well by the eighteenth day after the operation.

## SUGGESTIONS FOR THE TREATMENT OF PANCREATIC DIABETES.

By J. McNAMARA, M.D., B.Ch., B.A.O.R.U.I.

In a paper recently read before the Académie des Sciences, Paris, M. Kaufmann has given the results of very interesting experiments which he performed on dogs. He has proved that the internal secretion of the pancreas (that is, the secretion which, instead of passing along the pancreatic duct, is reabsorbed by the blood vessels) has an inhibitory influence on the formation of sugar in the liver. He has proved that this influence is exerted not merely through the nervous system, but through direct action on the liver cells. Removal of the pancreas, or excessive diminution of its internal secretion, is followed by hyperglycæmia and glycosuria. Exaggeration in the activity of the internal secretion produces hypoglycæmia.

From these facts I would suggest as the treatment of pancreatic diabetes the administration of fresh, uncooked, pancreatic extract, not by the mouth, for this has been already tried, with failure, nor hypodermically, but through the rectum, and, if necessary, through the rectal veins.

The failure which has followed the administration of pancreas through the mouth may be due to the fact that the secretion of the stomach neutralises the products of the pancreas, or, as I believe is more probable, it may be due to the fact that when administered in this way the sugar-restraining pancreatic element, instead of entering directly the portal vessels, as it normally does, gets absorbed by the lymphatics of the alimentary canal, and so passes into the general circulation. If any of it at all should ultimately reach the sugar-forming cells of the liver from the general circulation, it would probably be in a form so altered or so diluted as to be useless. The consideration of the wonderful ways by which Nature adapts her means to her ends would lead us to believe that there is some good reason why this mysterious sugar-restraining element is not allowed to enter the alimentary canal like the other products of the pancreas, and I would suggest the likelihood of its absorption by the lymphatics and subsequent destruction in the general circulation as the explanation. For the same reason, administration of pancreatic extract by hypodermic injection would probably be useless.

The case of the pancreas is not analogous to the case of the thyroid. The products of the thyroid gland pass directly into the general circulation. The sugar-restraining element of the pancreas must first do duty in the liver.

As regards rectal administration, we have of course the same difficulty to contend against. The lymphatics of the rectum, like the lymphatics elsewhere, lead to the general circulation. To get over this difficulty I would make the following suggestions. In the first place, after clearing the rectum by a purgative enema, I would inject a large quantity of pancreatic extract, a quantity too large for the lymphatics to take up at once. In this way it is possible that some of the extract might find its way directly into the capillary blood vessels and thence into the portal veins. Should this method not be followed by satisfactory results, I would suggest the injection of pancreatic extract into the submucous tissue of the anus or rectum. An ordinary hypodermic needle would serve for the anus, but for the rectum some modification in the needle and a speculum would be required.

This method would not be free from certain dangers, for instance, the formation of abscess in close proximity to the rectal veins, with consequent danger of pyæmia; or perhaps peritonitis from pushing the needle into the peritoneal cavity; or, again, the injection of a systemic vein with a substance of unknown action. The effect of injecting a systemic vein with pancreatic extract could, however, be ascertained by experiments on animals.

Here I may remark that injecting a portal vein is a very different thing from injecting a systemic vein. It is now known that peptones and some other products of digestion when injected into any vein, except a portal vein, will produce convulsions, coma, and death. But these difficulties are of small importance when we consider that pancreatic diabetes under present methods of treatment has but one termination, and that the grave.

Since these thoughts occurred to me I have had no case of pancreatic diabetes. Being unable, then, to subject my theories to the test of experiment, I offer them as suggestions to any members of the profession who may be more fortunately circumstanced.

## TWO OBSCURE CASES OF POST-INFLUENZAL CEPHALALGIA ENDING FATALLY.

By F. MORTIMER ROWLAND, M.B.Cantab., M.R.C.S.
Lichfield.

The two following cases are of extreme interest from their similarity and obscurity, and, so far as I am aware, from no such sequence of influenza having as yet been recorded. The chief points to be noted are briefly:

1. Influenza of no great severity was the illness preceding—in Case A, immediately; in Case B, a few months.
2. Mental trouble was a prominent factor.
3. With the exception of typhoid (?) fever both had fairly good health, and were robust without any trace of a syphilitic or tuberculous strain.
4. The sudden fatal termination after apparent improvement.
5. The obstinate constipation until the partial improvement began.
6. Absence of vomiting.
7. The gross retinal lesion in A, and its absence in B.
8. The sudden onset—in A. with a convulsion, in B. without—in both with syncopal symptoms.

Case A.—J. R., aged 46, but looking 60, a tall, fine-looking, well-built man, had "typhoid" five years before he came under treatment. He had lost his wife in March, 1893, and was "never the same man again." On